

**Identification of Hypotheses for Consideration in  
the National Children’s Study**

**TABLE OF CONTENTS**

I.	Introduction .....	1
II.	Overall Rating of Level of Importance of Proposed Hypotheses.....	2
III.	General Comments and Suggestions Provided by Expert Reviewers.....	6
IV.	Potential Areas for Further Research .....	7
V.	Ratings and Specific Feedback for Each Hypothesis.....	8

## Identification of Hypotheses for Consideration in the National Children's Study

The National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC) solicited The Lewin Group's (Lewin) consultation in recommending a set of potential research hypotheses for investigation in the *National Children's Study of Environmental Effects on Health and Safety*. The *National Children's Study*<sup>1</sup> is authorized by the Children's Health Act of 2000 to explore environmental factors, both helpful and harmful, that influence the health and well-being of children. The National Institute of Child Health and Human Development and a consortium of federal agencies, including the CDC, Environmental Protection Agency, and the National Institute of Environmental Health Sciences, are planning to examine a large cohort of children across the United States and follow them during prenatal development, through birth and childhood, and into adulthood.

To arrive at a set of hypotheses for potential inclusion in the study, Lewin conducted a review of current published literature on environmental influences on children's health, and compiled a list of hypotheses generated from the scientific literature. Our project team identified emerging hypotheses in the following research areas: asthma, childhood cancers, endocrine disrupters, environmental toxicants, injuries, neurodevelopment and biobehavioral development, and other specialized topics (e.g., SIDS and childhood obesity).

The Lewin Group then identified a diverse group of experts – including clinical researchers, epidemiologists, physicians specializing in child health and development, and others studying children's health and development – to review the merits of the hypotheses and arrive at a prioritized set of the most relevant candidate hypotheses for the *National Children's Study*. Lewin worked closely with the Task Order Monitor to identify five experts to review, rate, and provide feedback on the 29 hypotheses proposed for consideration in the *National Children's Study*. Our project team has synthesized the feedback provided by the expert reviewers to assist NCHS and the NCS working groups in evaluating the importance of considering inclusion of each of the 29 proposed hypotheses in the longitudinal study.

This report contains five sections, each demarcated by a separate tab:

- Section I offers a synthesis of the feedback provided by five experts who reviewed the 29 proposed hypotheses;
- Section II presents a summary list of the proposed hypotheses;
- Section III describes the criteria and instructions distributed to the expert reviewers to guide the rating of each hypothesis with respect to the hypothesis' public health significance, feasibility and appropriateness for study given the NCS study design, relevance given the state of current research and need for future research, and an overall assessment of its level of importance;
- Section IV provides background information on previous research findings that contributed to the development of each targeted research area and hypothesis; and
- Section V contains a description of Lewin's literature review methodology and findings that resulted in identification of the 29 hypotheses.

---

<sup>1</sup> Additional information about the *National Children's Study* is available at: <http://nationalchildrensstudy.gov>.